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REPORTS ON THE COLLECTIONS OBTAINED BY THE FIRST  
JOHNSON-SMITHSONIAN DEEP-SEA EXPEDITION  
TO THE PUERTO RICAN DEEP

# THREE NEW AMPHIPODS

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### THREE NEW AMPHIPODS

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The Amphipoda taken by the first Johnson-Smithsonian Deep-Sea Expedition in the Puerto Rican Deep in 1933 consist chiefly of known forms of Hyperiidea, but among the Gammaridea are three species new to science, which I here designate as *Cyphocaris johnsoni*, *Westwoodilla longimana*, and *Rhachotropis lobata*.

#### CYPHOCARIS JOHNSONI, n. sp.

*Male*.—First thoracic segment produced forward into a long, narrow, slightly up-curved process somewhat like that of *C. richardi*. Head rather deep, with a long narrow eye, the facets of which are long and point obliquely toward a central wavy line. Antenna 1 not half the length of antenna 2. Antenna 2 longer than the entire animal. Side-plate 2 deeper than 1 or 3. Side-plate 4 as deep as 5 and apparently narrower than in the other species of the genus. Side-plate 5 long in proportion to its width. Gnathopods 1 and 2 and pereopods 1 and 2 about normal. Pereopod 3 with second joint much more than twice as long as its side-plate, proportionately narrow and armed with serrations along about two thirds of the upper margin, third to seventh joints combined not half as long as second joint. Pereopod 4 slightly shorter than 5, second joint moderately expanded, hind margin with a few serrations and produced downward into a pointed lobe. Pereopod 5, second joint moderately expanded, hind margin slightly convex, bearing many serrations and produced downward into a pointed lobe, seventh joint very short. Uropod 1 extending backward farther than 2, which reaches back as far as 3. Uropods about normal in form. Telson very narrow and nearly twice as long as uropod 3, cleft for about seven eighths of its length, with lobes sharply pointed, but having no spines or setae.

*Length*.—About 19 mm.

*Holotype*.—U.S.N.M. no. 69101, taken at station 97, latitude  $18^{\circ}37'30''$  N. to  $18^{\circ}38'15''$  N., longitude  $65^{\circ}02'15''$  W. to  $65^{\circ}00'30''$  W., March 3, 1933, 310 to 400 fathoms.



FIG. 1.—*Cyphocarid johnsoni*, new species. *a*, entire animal ♂; *b*, gnathopod 1♂ greatly enlarged; *c*, gnathopod 2♂ greatly enlarged; *d*, telson ♂; *e*, head of female.

The female closely resembles the male except in the following characters. First thoracic segment not produced beyond the head. Peraeopod 3 with second joint somewhat shorter, and the serrations of upper margin extending only about half its length; third to seventh joints combined a little over half the length of the second joint.

**WESTWOODILLA LONGIMANA, n. sp.**

This specimen is not perfect, but I believe there is quite enough to establish the species. Only parts of the antennae are present. The last three pairs of peraeopods and the last two pairs of uropods are missing. This species appears to be nearest to *Westwoodilla rectirostris* as figured by Chevreux.<sup>1</sup>

Head with frontal process rather short, strongly arched, and ending in a short, outward-curved rostrum. Eyes apparently large but very poorly defined. Side-plate 1 not projecting so far forward as shown by Chevreux for *W. rectirostris*. Gnathopod 1 about as shown by Chevreux for *W. rectirostris*. Gnathopod 2 with fifth and sixth joints subequal in length and very elongate. Palms of gnathopods defined by a shallow notch and a long slender spine. Peraeopods 1 and 2 alike, sixth joint obliquely truncate and bearing many long, curved, terminal spines. Telson oval, apex slightly flattened and bearing several minute spinules.

*Length*.—About 5 mm.

*Holotype*.—U.S.N.M. no. 68326, taken at station 84, latitude  $18^{\circ}32'30''$  N. to  $18^{\circ}39'00''$  N., longitude  $65^{\circ}18'30''$  W. to  $65^{\circ}17'00''$  W., February 26, 1933, probably 300 to 350 fathoms. The type female was the only specimen taken.

*Remarks*.—The frontal process is much more strongly deflected than in *Westwoodilla rectirostris*; the fifth and sixth joints of gnathopod 2 are much more elongate than in *W. rectirostris*. As figured by Della Valle,<sup>2</sup> the sixth joint of peraeopods 1 and 2 of *W. rectirostris* is distally rounding and not obliquely truncate as in *W. longimana*. Della Valle figures the telson of *W. rectirostris* with the lateral margins slightly concave, whereas in *W. longimana* the telson is oval in outline.

**RHACHOTROPIS LOBATA, n. sp.**

*Female*.—Head, rostrum prominent, curving slightly downward, apex rounding; lower lateral corner nearly quadrate. Eyes rather large and bulging laterally from the head. Antennae about normal.

<sup>1</sup> Mem. Soc. Zool. France, vol. 23, pl. 13, figs. 19-22, 1911.

<sup>2</sup> Fauna und Flora des Golfes von Neapel, Gammarini, pl. 33, figs. 14, 15, 1893.

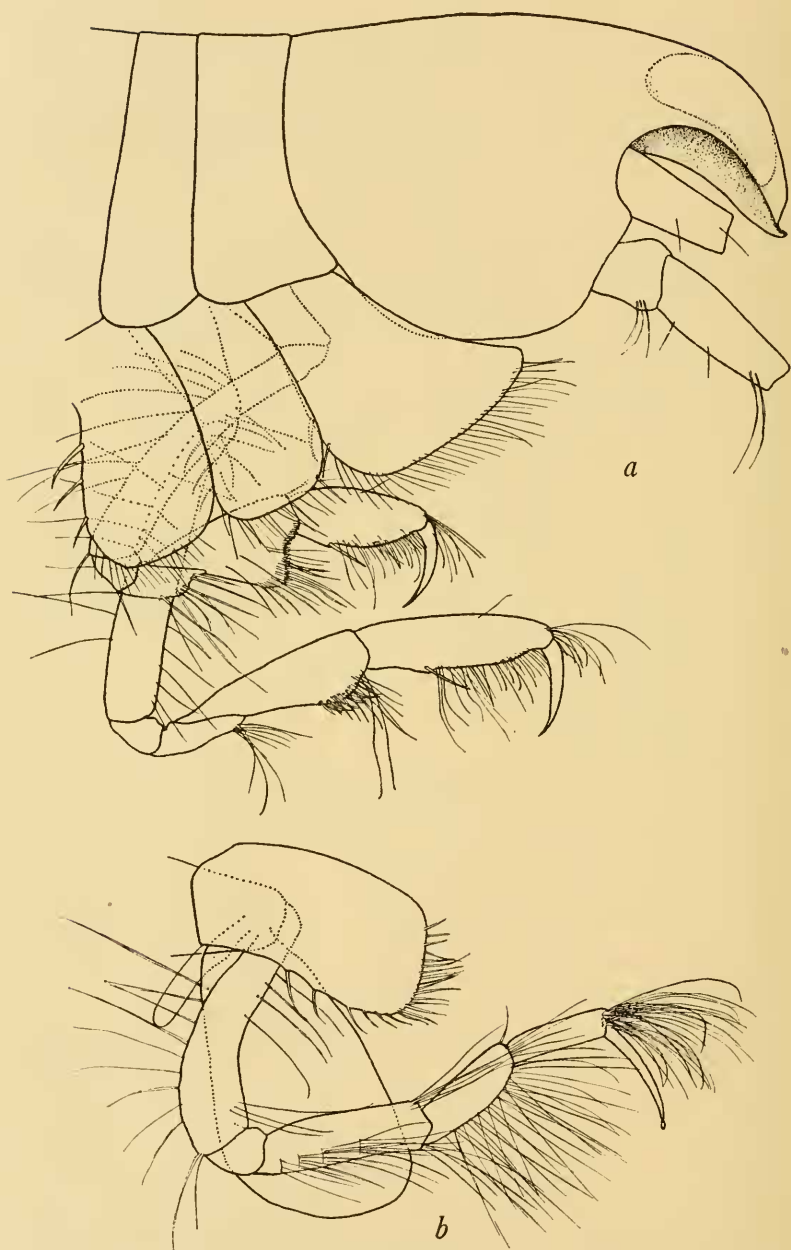


FIG. 2.—*Westwoodilla longinana*, new species. Female: *a*, anterior end of animal; *b*, peraeopod 1.

Gnathopods normal. Peraeopod 1, dactyl as long as sixth joint. Peraeopod 2, dactyl longer than sixth joint. Peraeopod 3, second

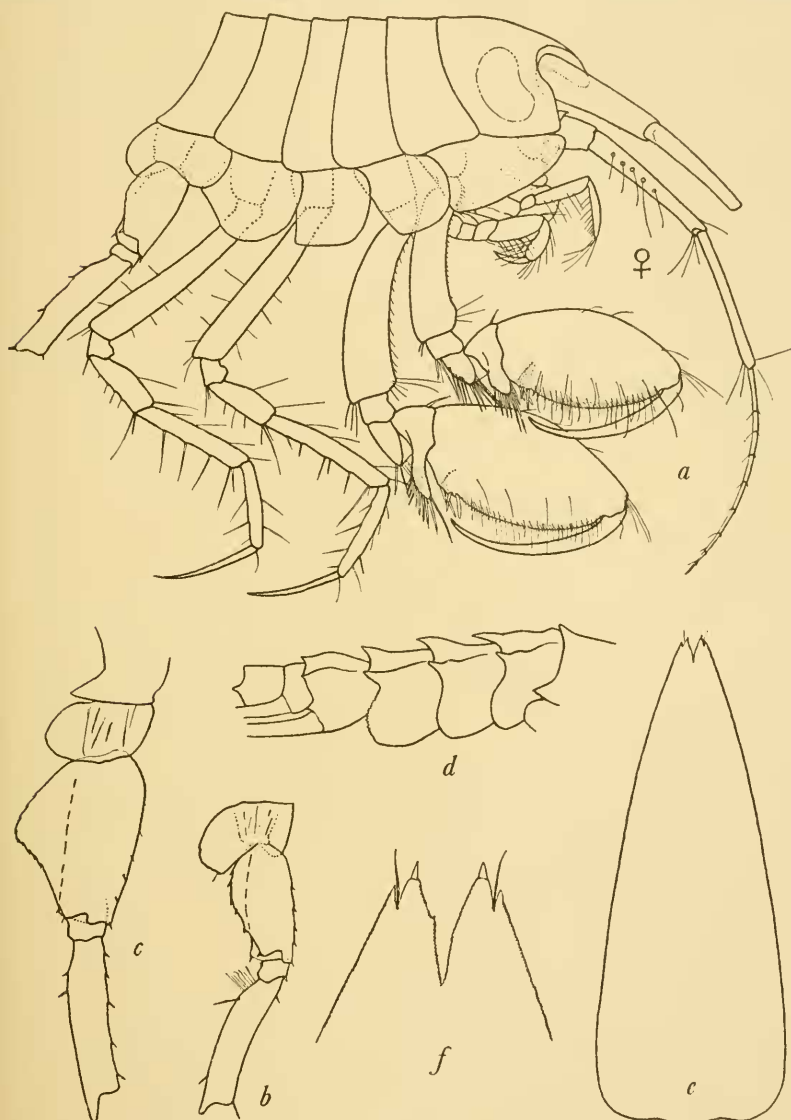


FIG. 3.—*Rhachotropis lobata*, new species. Female. *a*, anterior end of animal; *b*, peraeopod 4; *c*, peraeopod 5; *d*, posterior end of animal, on smaller scale than anterior end; *e*, telson, greatly enlarged; *f*, end of telson showing lobes.

joint slightly expanded, hind margin slightly convex. Peraeopod 4 like peraeopod 3, but second joint a little more expanded. Peraeopod

5, second joint much more expanded than 4, with hind margin produced backward into a blunt lobe. Hind margin of seventh thoracic segment bearing a short median dorsal tooth. Pleon segments 1 to 3 bearing a median dorsal tooth, on either side of which is a lateral tooth. Pleon segment 4 with a low median dorsal ridge ending in a small tooth, on either side of which is a very small lateral tooth. Pleon segment 3 with postero-lateral margin finely serrate. Uropods normal. Telson not reaching end of uropod 3, converging by gently convex lateral margins to a narrow apex, which is cleft by a very shallow notch forming short dehiscent pointed lobes, each of which bears a notch and a setule on the outer margin.

*Length*.—6.5 mm.

*Holotype*.—U.S.N.M. no. 69102, taken at station 101, latitude  $18^{\circ}40'30''$  N. to  $18^{\circ}45'40''$  N., longitude  $64^{\circ}50'00''$  W. to  $64^{\circ}48'00''$  W., March 4, 1933, 190 to 300 fathoms.